

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

10-II-48

Received at London Office

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of Newcastle-on-Tyne

No. in Survey held at Hebburn-on-Tyne Date, First Survey 29.12.47. Last Survey 18.11.48. 19

Reg. Book.

(Number of Volls.....19.....)

26213 on the s.s. "STANROYAL" ex. "ISAR" Tons {Gross 2026
Net 5637

Built at Hamburg By whom built Deutsche Schiff-U-Maschby Yard No. - When built 1929

Owners Stanhope S.S.Co.Ltd A.G.Vulcan London

Port belonging to -

Electrical Installation fitted by Palmers (Hebburn) Ltd Contract No. - When fitted 1948

Is vessel fitted for carrying Petroleum in bulk No. Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. No.

Have plans been submitted and approved Yes System of Distribution two-wire insulated Voltage of supply for Lighting 220

Heating 220 Power 220 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current state periodicity - Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off Yes Are turbine emergency governors fitted with a

trip switch as per Rule - Generators, are they compound wound yes, are they level compounded under working conditions yes,

if not compound wound state distance between generators - and from switchboard - Where more than one generator is fitted are they

arranged to run in parallel yes, are shunt field regulators provided yes Is the compound winding connected to the negative or positive pole

negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing - Have certificates of

test for machines under 100 kw. been supplied - and the results found as per rule - Are the lubricating arrangements and the construction

of the generators as per rule yes Position of Generators Starboard side, Engine Room

-, is the ventilation in way of generators satisfactory yes are they clear of inflammable material yes, if situated

near unprotected combustible material state distance from same horizontally - and vertically -, are the generators protected from mechanical

injury and damage from water, steam and oil yes, are the bedplates and frames earthed yes and the prime movers and generators in metallic

contact yes Switchboards, where are main switchboards placed On angle Framework near generators

-

are they in accessible positions, free from inflammable gases and acid fumes yes, are they protected from mechanical injury and damage from water, steam

and oil yes, if situated near unprotected combustible material state distance from same horizontally - and vertically -, what insulation

material is used for the panels Ebony "Sindanyo", if of synthetic insulating material is it an Approved Type yes, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule - Is the frame effectually earthed yes

Is the construction as per Rule yes, including accessibility of parts yes, absence of fuses on the back of the board yes, individual fuses

to pilot and earth lamps, voltmeters, etc., yes locking of screws and nuts yes, labelling of apparatus and fuses yes, fuses on the "dead"

side of switches yes Description of Main Switchgear for each generator and arrangement of equaliser switches A double-pole air

break circuit-breaker with linked switch for equaliser and fitted with O/L and R/V current

tripping devices.

and for each outgoing circuit A double-pole quick-break knife switch and double-pole fuse

-

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard two

ammeters two voltmeters - synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection yes Earth Testing, state means provided E lamps

Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an approved type yes, are all fuses labelled as

per Rule yes If circuit breakers are provided for the generators, at what overload current did they open when tested 820A., are the reversed current

protection devices connected on the pole opposite to the equaliser connection yes, have they been tested under working conditions, and at what current

did they operate 108 Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules yes, if otherwise than as per Rule are they of an approved type -

state maximum fall of pressure between bus bars and any point under maximum load 8.5, are the ends of all cables having a sectional area of 0.01

square inch and above provided with soldering sockets yes Are paper insulated and varnished cambric insulated cables sealed at the ends yes

with insulating compound or waterproof insulating tape. yes. Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage. yes, are cables laid under machines or floorplates. no, if so, are they adequately protected. yes. Are cables in machinery spaces, galleys, laundries, etc., lead covered. yes or run in conduit. no. State how the cables are supported and protected. Main feeders are L.C.A.B. clipped to steel tray: In accommodation, L.C. cables clipped to the surface and protected where necessary by wood or metal guards.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. yes. Refrigerated chambers, are the cables and fittings as per Rule. yes. Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. yes, where unarmoured cables pass through beams, etc., are the holes effectively bushed. yes and with what material. lead. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. yes. Emergency Supply, state position. no and method of control. no.

Navigation Lamps, are they separately wired. yes controlled by separate double pole switches. yes and fuses. yes. Are the switches and fuses in a position accessible only to the officers on watch. yes, is an automatic indicator fitted. yes. Secondary Batteries, are they constructed and fitted as per Rule. no, are they adequately ventilated. no what is the battery capacity in ampere hours. no.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. yes. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. no, if so, how are they protected. no.

and where are the controlling switches fitted. no, are all fittings suitably ventilated. yes, are all fittings and accessories constructed and installed as per Rule. yes. Searchlight Lamps, No. of. One, whether fixed or portable. portable, are their fittings as per Rule. yes. Heating and Cooking, is the general construction as per Rule. yes, are the frames effectually earthed. yes, are heaters in the accommodation of the convection type. yes. Motors, are all motors constructed and installed as per Rule. yes and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil. yes, if situated near unprotected combustible material state minimum distance from same horizontally. no and vertically. no. Are motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment. yes.

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. no. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule. no. Control Gear and Resistances, are they constructed and fitted as per Rule. yes. Lightning Conductors, where required are they fitted as per Rule. yes. Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with. no, are all fuses of the cartridge type. no are they of an approved type. no. Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships. no. Are the cables lead covered as per Rule. no. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule. yes, are they suitably stored in dry situations. yes. Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory. yes.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	150	220	681	500	Steam Engines		
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Fols.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... No. 1	150	2	61/.093	681	928	24	V.C.	L.C.B.
" " EQUALISER		1	"		464	24	"	"
" " Eq.	150	2	61/.103	181	1080	46	"	"
" " Eq.		1	"	681	540	41	"	"
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Fols.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	
AUX. SWITCHBOARDS AND SECTION BOARDS						
Cargo Lights & Floodlights S.B.A.	I	19/.052	55	64	90	V.I.R. Lcab.
Midship Ventilation S.B.B.	I	19/.052	32	64	90	do. do.
Engine & Boiler Rm Ltg. S.B.C.	I	19/.052	33	64	45	do. do.
Crews Lighting S.B.D.	I	19/.052	22.5	64	750	H.R.B.
Galley Power S.B.G.	I	19/.052	22	64	180	V.I.R. L.C.
Engine Rm Power S.B.J.	I	19/.052	11	64	45	do. L.C.A.B.
Ventilation Aft S.B.L.	I	7/.064	20	46	750	H.R.B.
Midship Heating Aft. S.B.M.	I	19/.083	98.9	191	180	V.C. L.C.B.
Midship Accom. Ltg. S.B.N.	I	19/.083	54	118	210	V.I.R. L.C.
Midship Heating Fwd. S.B.O.	I	19/.083	118	191	180	V.C. L.C.A.B.
Gyro Compass supply circuit K.	I	7/036	20	24	360	V.I.R. L.C.
Searchlight supply circuit F.	I	19/.052	60	64	900	HRB

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS ... circuit E.	I	19/.052	30	64	260	V.I.R.	L.C.
NAVIGATION LIGHTS H.	I	7/.044	10	31	360	do.	do.
Cargo Ltg & Floods D.B.-A.D.I.	I	7/.052	37	37	450	H.R.B.	-
Cargo Ltg & Floods D.B.-A.D.2.	I	7/.052	20	37	30	do.	-
" " " D.B.-A.D.3.	I	7/.052	25	37	450	do.	-
Engine & Boiler Rm Ltg. D.B.-C.D.I.	I	7/.052	11	57	45	V.C.	L.C.A.B.
" " " D.B.-C.D.2.	I	7/.052	11	57	45	"	"
" " " D.B.-C.D.3.	I	7/.052	11	57	75	"	"
Crews Lighting D.B.-D.D.I.	I	7/.036	9	24	30	V.I.R.	L.C.
" " " D.B.-D.D.2.	I	7/.036	9	24	30	"	"
" " " D.B.-D.D.3.	I	7/.036	4.5	24	210	"	"
Midship Heating Aft. D.B.-M.D.I.	I	19/.044	48.3	87	60	V.C.	"
" " " D.B.-M.D.2.	I	19/.044	50.6	87	60	"	"
Midship Accom. Ltg. D.B.-N.D.I.	I	7/.044	8	31	150	V.I.R.	"
" " " D.B.-N.D.2.	I	7/.044	8	31	180	"	"
" " " D.B.-N.D.3.	I	7/.044	15	31	15	"	"
" " " D.B.-N.D.4.	I	7/.044	15	31	60	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.					
Potato Peeler Motor	I	I	I	3/.036	5	10	30 V.I.R. L.C.
Toaster	I	2.2KW.	I	3/.036	10	10	30 " "
Domestic Frig.	I	1.5	I	3/.036	7	10	30 " "
Lathe Motor	I	2.	I	7/.029	8	15	60 " "
Oil Separator Motor	I	2	I	3/.036	3	10	60 " "
Refrig Hold Fans	I	20	I	19/.064	77	83	150 " "
Oil Fuel Transfer Pump	I	16	I	19/.083	63.7	118	270 " "

Midship Accom. Ltg. D.B. ND. 4	I	7/.044	8	31	90	V.I.R.	L.C.
Midship Htg. Fwd. D.B. OD. I	I	19/.044	63	87	60	V.C.	"
" " D.B. OD. 2	I	19/.044	55	87	60	"	"

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The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.
All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.
The foregoing is a correct description.

A. L. White

Electrical Engineers.

Date 23-11-48

COMPASSES.

Minimum distance between electric generators or motors and standard compass.....
Minimum distance between electric generators or motors and steering compass.....
The nearest cables to the compasses are as follows:—
A cable carrying Amperes feet from standard compass feet from steering compass.
A cable carrying Amperes feet from standard compass feet from steering compass.
A cable carrying Amperes feet from standard compass feet from steering compass.
Have the compasses been adjusted with and without the electric installation at work at full power
Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted
The maximum deviation due to electric currents was found to be degrees on course in the case of the
standard compass, and degrees on course in the case of the steering compass.
Builder's Signature. Date.....

Is this installation a duplicate of a previous case..... No. If so, state name of vessel.....
Plans. Are approved plans forwarded herewith..... Yes If not, state date of approval.....
Certificates. Are certificates of test for ~~motors, generators, transformers and generators~~ forwarded herewith..... Yes.....
General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.).....

A completely new installation including main switchboard and wiring has been fitted in this vessel and two reconditioned generators of 150 K.W. capacity have been installed. The installation as now fitted complies with the approved plans and the "Rules For Electrical Equipment". The materials and workmanship are good. On completion, the equipment was tested throughout and the insulation resistance of all circuits was found good. The generators were satisfactorily operated on load. This equipment is in our opinion suitable for a vessel bearing The Society's class.

Noted 26/2/49

(2 x 150)
Total Capacity of Generators..... 300 Kilowatts.

The amount of Fee £ 24 : 0 :
Travelling Expenses (if any) £ : :
When applied for,
When received,
19.....

R. Stone and *S. D. Mann*
Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned *See minute on file.*

5m 4.30.—Transfer. (MAI)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

FRL 4 MAR 1949



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